

## EARMARK DECLARATION

**HON. JOHN J. DUNCAN, JR.**

OF TENNESSEE

IN THE HOUSE OF REPRESENTATIVES

*Wednesday, December 16, 2009*

Mr. DUNCAN. Madam Speaker, consistent with House Republican Earmark Standards, I am submitting the following earmark disclosure information for project requests that I made and which were included within H.R. 3326, the "Department of Defense Appropriations Act, FY2010."

Requesting Member: Congressman JOHN DUNCAN

Account: RDTE—Air Force

Project Amount: \$1,600,000

Legal Name of Requesting Entity: University of Tennessee, 328 Ferris Hall, 1508 Middle Drive, Knoxville, Tennessee 37996

Description of Request: The funding will be used for design, testing, and evaluation of systems needed for the harvesting and storage of green energy. The need for the nation to design, implement, and test systems and processes capable of producing renewable energy at a large scale is vital for the U.S. military and the Nation as a whole.

**A PROCLAMATION HONORING  
KELLY LAW FOR HER CERTIFI-  
CATION BY THE NATIONAL  
BOARD FOR PROFESSIONAL  
TEACHING STANDARDS**

**HON. ZACHARY T. SPACE**

OF OHIO

IN THE HOUSE OF REPRESENTATIVES

*Wednesday, December 16, 2009*

Mr. SPACE. Madam Speaker,

Whereas, Kelly Law has been granted certification by the National Board for Professional Teaching Standards; and

Whereas, Kelly Law has sufficiently demonstrated adherence and dedication to the five core propositions of teaching set by the National Board for Professional Teaching Standards; and

Whereas, due to her hard work and dedication to her profession, Kelly Law was able to achieve this esteemed honor; and

Whereas, we recognize the values and lessons teachers impart to our children; and

Whereas, the creative ingenuity that Kelly Law has demonstrated while educating her students; now, therefore, be it

Resolved, that along with Ohio's 18th Congressional District, I congratulate Kelly Law for her certification by the National Board for Professional Teaching Standards.

**EXPRESSING CONDOLENCES AND  
CELEBRATING THE LIFE OF  
HENRY S. MILLER, JR.**

**HON. EDDIE BERNICE JOHNSON**

OF TEXAS

IN THE HOUSE OF REPRESENTATIVES

*Wednesday, December 16, 2009*

Ms. EDDIE BERNICE JOHNSON of Texas. Madam Speaker, I rise today in honor of Henry S. Miller, Jr. who passed away on Saturday, December 5, 2009.

Mr. Miller was an icon in the Dallas community who created a real estate empire with over 1,300 employees and 41 offices. After joining the business his father founded, Miller steered Henry S. Miller Co. to success by pioneering the concept of specialization of services. Essentially, Miller championed the idea of creating specialists in commercial real estate fields like industrial, retail, and multifamily. By doing this, he created a real estate culture that encouraged employees to be incredibly knowledgeable in specific areas, allowing the company to move forward quickly and effectively in those fields.

Throughout his career and life, Mr. Miller was regarded as an honest and humble man, and maintained these traits in an industry where it is easy to devolve into something much different. Known throughout the community as a businessman of integrity and knowledge, he was a pioneer in the Dallas real estate industry and helped to develop it into the powerhouse that it is today.

Madam Speaker, I ask my fellow colleagues to join me in honoring this great man who truly was ahead of his time.

**RECOGNIZING THE MANY YEARS  
OF SERVICE OF JIM PITCOCK**

**HON. JOHN BOOZMAN**

OF ARKANSAS

IN THE HOUSE OF REPRESENTATIVES

*Wednesday, December 16, 2009*

Mr. BOOZMAN. Madam Speaker, I rise today to pay tribute to a fine Arkansan who, on December 11, 2009, ended a 51-year career in television, radio and politics.

Jim Pitcock's career in Arkansas radio, television and politics began in his hometown of Fort Smith in 1958 as a part-time camera operator at KFSA television. He would attend junior college during the day, then work at the television station during the evening newscasts.

A short time later he was offered a job at KCCL Radio in Paris, Arkansas where he received his first chance to do "on-air" work as a disc jockey. He traded in school for the job and spent the next two years driving back and forth to Paris while continuing his work at the television station in the evening.

In 1960, Jim began work as a full-time disc jockey at KFSA Radio in Fort Smith.

In 1963, KAAV, the "Mighty 1090" in Little Rock offered Pitcock a job in the Capitol City where he assumed the identity of "Ron Owens—The Midnight Satellite."

Almost a year to the day later, Jim Pitcock was hired by KATV Television where he began a 32-year career as the station's News Director. At one point, Pitcock served as the longest-tenured news director in the country. He traveled from Moscow to Vietnam bringing Arkansans news in international significance with a local perspective. Pitcock also oversaw the station's coverage of then-Governor Bill Clinton's rise to the White House in 1991 earning the station a Regional Emmy Award from the National Academy of Television Arts and Sciences.

During his tenure Pitcock won numerous Associated Press Broadcaster's Association awards and led the station's news department atop the ratings for more than a decade.

Jim Pitcock has been honored with a number of other awards for his work as an Arkan-

sas broadcast journalism pioneer including: The Arkansas Society of Professional Journalist's "Silver Microphone" Award for lifetime achievement and the University of Arkansas Department of Journalism's "Ernie Deane Award" for his contribution to broadcast journalism in the state.

Pitcock also served for a time as Congressman Bill Alexander's Field Director in Arkansas, worked with former Arkansas Attorney General MARK PRYOR and finished his career as an aide to United States Senator MARK PRYOR.

One of seven siblings, Jim Pitcock and all three of his brothers worked in the broadcast journalism field during their careers. Oldest brother Bill Pitcock (deceased) served as evening news anchor for KOTV News in Oklahoma City, Bob Gregory Pitcock worked as a correspondent for CBS News Washington and youngest brother Jerry Pitcock worked at KATV in Little Rock and the Arkansas Educational Television Network in Conway, Arkansas.

Jim has four grown children and six grandchildren.

**A PROCLAMATION HONORING KIM-  
BERLY BRUGGER FOR HER CER-  
TIFICATION BY THE NATIONAL  
BOARD FOR PROFESSIONAL  
TEACHING STANDARDS**

**HON. ZACHARY T. SPACE**

OF OHIO

IN THE HOUSE OF REPRESENTATIVES

*Wednesday, December 16, 2009*

Mr. SPACE. Madam Speaker,

Whereas, Kimberly Brugger has been granted certification by the National Board for Professional Teaching Standards; and

Whereas, Kimberly Brugger has sufficiently demonstrated adherence and dedication to the five core propositions of teaching set by the National Board for Professional Teaching Standards; and

Whereas, due to her hard work and dedication to her profession, Kimberly Brugger was able to achieve this esteemed honor; and

Whereas, we recognize the values and lessons teachers impart to our children; and

Whereas, the creative ingenuity that Kimberly Brugger has demonstrated while educating her students; now, therefore, be it

Resolved, that along with Ohio's 18th Congressional district, I congratulate Kimberly Brugger for her certification by the National Board for Professional Teaching Standards.

## EARMARK DECLARATION

**HON. ROBERT B. ADERHOLT**

OF ALABAMA

IN THE HOUSE OF REPRESENTATIVES

*Wednesday, December 16, 2009*

Mr. ADERHOLT. Madam Speaker, pursuant to the Republican Leadership standards on earmarks, I am submitting the following information regarding earmarks I received as part of H.R. 3326—the Department of Defense Appropriations Act, 2010.

Request as named in the report: Electrically Charged Mesh Defense Net Troop Protection System

Requesting Member: ADERHOLT  
 Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010  
 Account or Provision: RDT&E—Army  
 Legal Name of Requesting Entity: Victory Solutions, Inc.

Address of Requesting Entity: 4900 Corporate Drive, Suite A, Huntsville, AL 35805.

Description of Request: \$7,500,000. The funding would be used for “D-NET” a Defense Net Troop Protection System designed to intercept and negate the serious insurgent and terrorist threat tactics employing Rocket Propelled Grenades (RPG), mortars, and small rocket munitions encountered by U.S. Combat Forces. This product could help save warfighters’ lives in hostile territories such as Afghanistan and Iraq through an innovative and low-cost system of defending vehicles against enemy attacks by further testing and prototype development of a system which has passed all tests so far and gotten favorable government program manager review, and which was developed with input from troops in the field. The spending plan for this Phase II of the program, to total \$7,500,000, is: Prototype Production and Field Test & Evaluation Program for integration and operational development. Further develop the D-Net technology based on Phase I R&D Tests to a Technology Readiness Level (TRL) worthy of deploying a limited quantity of “Field Prototypes” to Theatre for field and operations test and evaluation.

FY2010 Task A: D-Net “Field Prototypes” (\$3.5M). Deliver to Army Logistics: 100 “Field Prototypes” of the D-Net Static Troop Protection System for Theatre Deployment on military asset vehicle for field testing (Procurement of Prototypes delivered to Military. Develop, Build, Assemble, Kit Packaging within military requirements like HAZMAT etc, Deliver and Ship to War Zone to fill purchase for Field Test Program) (\$3.5M, or \$35K/unit).

Task B: Field Test Program, data collection and refinement (\$1.075M). Send science and engineering teams to Theatre for collection of field data from Field Prototypes deployed (Data collection material \$125K, OCONUS Labor \$425K), interact with operating community for feedback, return to lab and refine the technology for better performance and utility (Re-engineer labor \$225K). Requires OCONUS travel (\$300K).

Task C: Threat Characterization (\$350K). Analyze and Perform trade Studies on Threat variants commonly engaged in Theatre scenarios. Engineering and analysis labor (\$350K).

Task D: Net Optimization & Continued R&D (\$1.3M); Range Test Net Materials (\$250K); Government Provided Range Test Facilities & Government Provided Threats for Tests (\$500K); Parametric Studies/ Validation Labor/ Salaries Engineering (\$250K) and Manufacturing labor (\$250K), Travel (\$50K).

Task E: Continue Launcher Development (\$870K). Ground and Aerial Launcher Design and Development R&D and Fabrication Material (\$320K); Testing (\$150K); Labor for Engineering, Integration and Manufacturing for Platform Depot Requirements (\$400K).

Task F: Integration to Systems & Platforms (\$405K). Design and Integration Trade Studies, COTS Sensor Integration Analysis and Labor (\$250K); Material (\$75K), Travel to Platform Project Offices (\$80K).

Request as named in the report: Marine Corps MK 1077 Flatracks

Requesting Member: ADERHOLT  
 Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010  
 Account or Provision: RDT&E—Army  
 Legal Name of Requesting Entity: SUMMA Technology, Inc.

Address of Requesting Entity: headquartered at 140 Sparkman Drive, Huntsville, AL 35805. The manufacturing facility is in Cullman, Alabama.

Description of Request: \$3,000,000. The funding would be used for the MK1077 Flatrack. This is a revolutionary material handling system that provides the Marines with expedited logistical support while achieving significant manpower and equipment reductions. These racks and the containers they work with can be used to transport ammunition or other supplies in and out of areas quickly, thus greatly reducing the warfighter’s exposure to danger. This is a continuation of a multi-year procurement program, and the recipient company has a proven record of meeting the strict, structural requirements for this item. The USMC has a requirement for 3,500 MK1077 Flatrack units of which 1,000 units have been acquired to date. \$3,000,000 will provide approximately 347 additional units, bringing the inventory up to 1,347.

Request as named in the report: Waterside Wide Area Tactical Coverage and Homing

Requesting Member: ADERHOLT  
 Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010  
 Account or Provision: RDT&E—Army  
 Legal Name of Requesting Entity: Miltec Corporation

Address of Requesting Entity: Miltec Corporation, located at 21232 Hwy 431, Guntersville, AL 35976

Description of Request: \$4,000,000. The funding would be used for development and integration of systems for the final test and demonstration of the WaterWATCH affordable underwater monitoring capability. Most waterfront facilities are unprotected due to cost considerations. Finalization of this product would make available a security system which installations at military bases and other critical infrastructure locations (such as nuclear power plants near waterways) could afford. WaterWATCH integrates many currently available components through the development of new software and the testing of these systems. Approximately \$60,000 would be needed for travel, approximately \$150,000 for hardware, and the rest for labor (software development and testing).

Request as named in the report: Protective Self-Decontaminating Surfaces

Requesting Member: ADERHOLT  
 Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010  
 Account or Provision: RDT&E—Defense-Wide

Legal Name of Requesting Entity: Ventana Research Corp. (VRC) & Kappler, Inc., and Kappler, Inc.

Address of Requesting Entity: VRC at 2702 South 4th Avenue, South Tucson, AZ 85713-4816; and Kappler at 115 Grimes Drive, Guntersville, AL 35976-9364

Description of Request: \$2,000,000. The funding would be used for Prototype field validation tests of VRC-Kappler Chemical Biohazard Protective systems, lab tests of bacterial infections, diseases and contaminated human remains pouches (CHRP’s); to field and

live test nerve gas and radiological agents (in order to design the suit to withstand such an attack by a hostile nation). Present decontamination processes are labor intensive and require lengthy downtimes. Field-tested prototypes of this fabric demonstrate cost-effective Chemical Biohazard protection for military personnel and civilian populations. Applications could be military, for homeland security, or for dangerous medical and rescue operations. The spending plan is Personnel: \$620,000; Materials: \$80,000; Equipment: \$120,000; travel: \$25,000; Govt Agency partnerships: Oversight and testing work: DTRA/CBT: \$90,000; AFRL/Tyndall AFB: \$250,000; USA NSRDEC: \$90,000; Preproduction, Live Agents Tests, \$825,000

Request as named in the report: Scenario Generation for IAMD Evaluation (SGIE)

Requesting Member: ADERHOLT  
 Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010  
 Account or Provision: RDT&E—Defense-Army

Legal Name of Requesting Entity: QinetiQ North America Systems Engineering Group

Address of Requesting Entity: AMSRD-AMR-BA Bldg. 6263, Redstone Arsenal, AL 35898

Description of Request: \$4,200,000 for Scenario Generation for IAMD Evaluation (SGIE) in fiscal year 2010. The entity to receive funding for this project is QinetiQ North America Systems Engineering Group, located at 890 Explorer Boulevard, Huntsville, AL 35806. The funding would be used for 54 ground test cases identified in the IAMD TEMP and 7 flight test cases derived from ground test matrix. A scenario for each test case is required to capture the design specification as it is intended to perform in a battlefield situation. Taxpayer Justification: This program will contribute to the work of establishing an Integrated Air & Missile Defense System protect against air breathing missile and cruise missile threats. This work will provide a network centric system to integrate a mix of sensors and shooters through a common IAMD battle command system.

Request as named in the report: Enhanced—Rapid Tactical Integration for Fielding of Systems Initiative (E-RTIFS)

Requesting Member: ADERHOLT  
 Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010

Account or Provision: RDT&E—Defense-Army

Legal Name of Requesting Entity: PeopleTec, Inc.

Address of Requesting Entity: 4901-D Corporate Drive, Huntsville, AL 35805

Description of Request: \$3,900,000 for Enhanced Rapid Tactical Integration for Fielding of Systems (ERTIFS) in fiscal year 2010. The entity to receive funding for this project is PeopleTec, Doug Scalf, Linda Maynor, located at PeopleTec, Inc. 4901-D Corporate Drive, Huntsville, AL 35805. The funding would be used to support early SoS testing to ensure that interoperability issues are corrected before software is released for formal AIC testing. The ABCS-BA will leverage and evolve ERTIFS to support four types of required Interoperability Tests: (1) Individual System, (2) System of Systems (e.g. Software Blocking), (3) Backwards Compatibility—Interoperability and (4) Regression Testing. Taxpayer Justification: The early identification of these

issues will limit cost and schedule overruns on Aviation/Missile Systems prior to expensive hardware tests.

Request as named in the report: Swarms Defense Systems

Requesting Member: ADERHOLT

Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010

Account or Provision: RDT&E—Defense-Army

Legal Name of Requesting Entity: Southeast Systems Technology

Address of Requesting Entity: 4090 South Memorial Parkway M/S 3427B, Huntsville, AL 35802

Description of Request: \$3,000,000 funding for SWARMS DEFENSE SYSTEMS in fiscal year 2010. The entity to receive funding for this project is Computer Science Corporation, located at 4090 S. Memorial Parkway M/S 3427B, Huntsville, Alabama 35801. The funding would be used to close the gap between current and future Air Defense Systems dealing with enemy mortars, rockets, UAV's, and cruise missiles. Future threats exceed all requirements of current system and future AD plans. Taxpayer Justification: Swarms Defense is designed to protect soldiers and critical assets against enemy fire, especially high volume small munitions such as mortars, rockets, UAV's, cruise missiles, developing the critical technologies required to close the gap in current asset protection plans.

Request as named in the report: Tactical UAV, Heavy Fuel Engine

Requesting Member: ADERHOLT

Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010

Account or Provision: RDT&E—Defense-Army

Legal Name of Requesting Entity: Science and Engineering Services

Address of Requesting Entity: 4015 Pulaski Pike, NW., Huntsville, AL 35810

Description of Request: \$2,000,000 for the Tactical UAV, Heavy Fuel Engine in fiscal year 2010. The entity to receive funding for this project is Science and Engineering Services, Inc., located at 4015 Pulaski Pike, Huntsville, AL 35810. The funding would be used for development of lightweight military fuel engine for UAVs. Scope includes building engines to perform platform integration and flight test for use in a military environment. Funding supports design and implementation of the process to military standards. Taxpayer Justification: Shadow UAS is ideal for providing direct information to commanders increasing awareness. Heavy fuel technology allows an engine to burn any fuel, diesel, JP5, JP8, gasoline, producing low emission, can be economically manufactured, and maintained

Request as named in the report: Army Responsive Tactical Space System Exerciser (ARTSSE)

Requesting Member: ADERHOLT

Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010

Account or Provision: RDT&E—Defense-Army

Legal Name of Requesting Entity: J2 Technologies Inc.

Address of Requesting Entity: 4801 University Square, Suite 31, Huntsville, AL 35816

Description of Request: \$3,000,000 for Army Responsive Tactical Space System Exerciser (ARTSSE) in fiscal year 2010. The entity to receive funding for this project is J2 Tech-

nologies Inc., located at 4801 University Square, Suite 31, Huntsville, AL 35816-1815. The funding would be used to provide the hardware-in-the-loop test capability designed to address the need to define performance requirements, evaluate and execute Operationally Responsive Space programs thus ensuring the warfighter's continued access to space. Taxpayer Justification: Army Responsive Tactical Space System Exerciser (ARTSSE) provides technologies critical to maintaining access to space. ARTSSE supports an unfunded Army need to provide a responsive surge for space based communication, surveillance, and reconnaissance, especially when a change in circumstances brought about by foreign-owned assets requires a response from the U.S. systems within hours or a few days in order to maintain protection of U.S. personnel and assets.

Request as named in the report: Autonomous Cargo Acquisition for Rotorcraft Unmanned Aerial Vehicles

Requesting Member: ADERHOLT

Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010

Account or Provision: RDT&E—Defense-Army

Legal Name of Requesting Entity: Advanced Optical Systems, Inc.

Address of Requesting Entity: 6767 Old Madison Pike, Suite 410, Huntsville, AL 35806

Description of Request: \$1,600,000 for Autonomous Cargo Acquisition for Rotorcraft Unmanned Aerial Vehicles in fiscal year 2010. The entity to receive funding for this project is Advanced Optical Systems, Inc., located at 6767 Old Madison Pike, Suite 410, Huntsville, Alabama 35805. The funding would be used to demonstrate fully unmanned cargo pickup and delivery under operational conditions. The work will leverage current developments for manned systems, and will cooperate with TRADOC and logistics personnel at Ft. Rucker and Ft. Lee. Taxpayer Justification: The Army needs to leverage rotorcraft unmanned aerial systems to provide unmanned pickup and delivery for logistics supply and weapons placement. Unmanned cargo operations would reduce both aircrew losses and costs.

Request as named in the report: On-Board Vehicle Power (OBVP)

Requesting Member: ADERHOLT

Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010

Account or Provision: RDT&E—Defense-Army

Legal Name of Requesting Entity: DRS Training and Energy Management

Address of Requesting Entity: 110 Wynn Drive, Huntsville, AL 35805

Description of Request: \$3,100,000 for On-Board Vehicle Power (OBVP) in fiscal year 2010. The entity to receive funding for this project is DRS Training and Energy Management, located at 110 Wynn Drive, Huntsville, AL 35805. The funding would be used for OBVP provides electric power for vehicles and mission electronics. OBVP fits the space inside the bell housing of vehicle transmissions. The system is capable of producing 30–70 kW. Increased power is needed for IED detection and weapon systems. Taxpayer Justification: Growth in energy requirements on the battlefield has created a critical need to accelerate this program to production readiness. The system can deliver mobile/exportable electric power from the vehicle engine for electric power gap requirements.

Request as named in the report: Extremely Large, Domestic Expendable and Reusable Structures (ELDERS)

Requesting Member: ADERHOLT

Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010

Account or Provision: Dpa Defense Production Act Purchases

Legal Name of Requesting Entity: ATK Aerospace Structures

Address of Requesting Entity: 751 County Road 989, Building 1000, Iuka, MS 38852

Description of Request: \$9,800,000 For Current domestic large-scale, composites production capacity is constrained by processing limitations associated with the large diameter of the items being manufactured. At the same time, the Air Force is making future plans to utilize structures with diameters in excess of nine meters. The current domestic industrial production capacity does not support this scale of extremely large composite launch structures. The ELDERS Title III program was initiated in FY2009 with \$8.0 million to scale-up domestic composites manufacturing and processing capacity and support facilities to meet this critical emerging need in military space access. The three-phase program includes evaluation, modification and qualification of current automated production equipment and facilities, and the acquisition of necessary industrial capacity and processing capabilities. In general, Title III activities serve to lower defense acquisition and life-cycle costs and to increase defense system readiness and performance through the use of higher quality, lower cost, and technologically superior materials and technologies. The ELDERS Program will increase the capacity for increasingly larger composite structures, including development and acquisition of higher performing composite processing equipment.

Request as named in the report: Adaptive Robotics Technology for Space, Air and Missiles [ART-SAM]

Requesting Member: ADERHOLT

Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010

Account or Provision: RDT&E—Defense-Army

Legal Name of Requesting Entity: Calhoun Community College

Address of Requesting Entity: 6250 Hwy. 31 North Decatur Campus, Tanner, AL 35671

Description of Request: \$4,200,000 for Adaptive Robotics Technology for Space, Air and Missiles [ART-SAM] in fiscal year 2010. The entity to receive funding for this project is Calhoun Community College, located at 6250 U.S. Highway 31 North, Tanner, AL 35671. The funding would be used for a joint venture with leadership from the U.S. Army Space and Missile Defense Command (SMDC) and Alabama Industrial Development Training (AIDT), and will establish national robotics research and development capability at Calhoun Community College to leverage government, industry, and academia partnerships and their respective investments. Additionally, funds will be used to procure instrumentation, components and test fixtures to provide a hands-on laboratory for experiments and process testing in an unmanned environment. Taxpayer Justification: The ART-SAM project, once operational, will develop robotics technologies, systems and products for a variety of SMDC projects, programs, and core mission needs. It will serve as an economic development catalyst for robotic research and development,

training, operations and manufacturing. It will also support workforce development initiatives throughout the state.

Request as named in the report: Protective Self-Decontaminating Surfaces

Requesting Member: ADERHOLT

Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010

Account or Provision: RDT&E—DW

Legal Name of Requesting Entity: Ventana Research Corp. (VRC)

Address of Requesting Entity: 139 Barnes Drive, Suite 2, Tyndall AFB, FL

Description of Request: \$1,600,000 for ACD&P project of self-decontaminating surfaces for long-lasting personnel (e.g. clothing) & shelter (e.g. hospitals) protection from Chem/Bio (& nerve gas) attacks. Light-activated decontaminating material produces singlet oxygen, a mild oxidant, to destroy CB agents. Demonstrated the material traps & stores excess singlet oxygen during periods of sun & artificial light. Stored singlet oxygen is released to provide indoor & outdoor protection of 8+ hours during no light & dark periods. Further, no protection loss demonstrated in intense Arizona sunlight 39+ hours during 100+ degrees days. Completed FY07 Individual Protection (IP) ATD milestones. Started FY08 IP ACD&P phase & initiated nerve gas protection ATD for ACD&P in FY10 and will continue ACD&P effort in FY09. Technology: Sun or artificial light activates the decontaminating material to produce singlet oxygen, a mild, short-lived oxidant that effectively destroys chemical/nerve & biological agents. This long-lasting & durable capability for around-the-clock protection using sun or artificial light is the heart of the invention. Our FY10 request is prompted by the need for including nerve gas and nuclear decontamination capability. This will involve added-on tasks to the program in terms additional test and evaluation efforts. Nerve gas protection effort will address chemistry efforts and tests, nuclear protection disposable, absorbent materials.

Progress: (1) Mustard gas stimulant treated fabric tests demonstrated self-decontamination capability after exposure of 39 days to the intense AZ summer sun; (2) Kappler Provent fabric treated with VRC Decon Dye Coating demonstrated standard industrial practice can be used for first-article production of garments for breathability, field laundering, & durability testing; (3) VRC Decon Dye Coating showed no adverse effect upon Provent fabric's breathability, an essential Joint Service Lightweight Integrated Suit Technology (JSLIST) Ensemble requirement; (4) Airtight seam-bonding process demonstrated with Provent Fabric dyed with VRC Dye Coating enables standard protective suit manufacturing procedures eliminating protective coating application after suit completion, a more costly approach; (5) NMR & UV-Visible Spectroscopy showed Ventana Decon Dye Coating efficiently traps visible light-generated singlet oxygen in repeated release & oxidation a mustard gas & VX stimulant to decontaminated product in darkness; (6) UV-Visible Spectroscopy demonstrated to be a more cost-effective QA tool than conventional NMR inspection; (7) Live tests will be performed at the Defense Science & Technology Laboratory (distl), Proton Down, UK, during the week of April 27, 2009, additional tests are planned for 2Q09 & 3Q09. Samples have been provided to Dr. Stephen Lee, Chief Scientist, Ofc. Director U.S. Army

Research Office, for coordination & ITAR, export/import matters & permits.

The requested FY10 program under JPM-CBD's leadership addresses: (1) Perform ATDs on VRC Decon Dye coatings to add nerve gas & radiological agent (disposable garments & coatings) protection; (2) Conduct operational validity tests (ACD&P) of preselected Light-Activated CBNR Protective systems; (3) Continue pre-production of protection systems at Kappler & Ventana for several ACD&Ps of representative JLIST materials, components & suits & upgrade facilities to full production status.

Request as named in the report: Remote Monitoring and Troubleshooting (RMAT) Project

Requesting Member: ADERHOLT

Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010

Account or Provision: OP.N

Legal Name of Requesting Entity: Intergraph  
Address of Requesting Entity: 170 Graphics Drive, Madison, AL 35758

Description of Request: \$2,320,000 for RMAT will integrate with shipboard local control and monitoring systems by networking them together and providing secure shore-based remote monitoring of those systems in real time. Through the use of sensors, networks, and software-based controllers, RMAT will provide the means for monitoring and troubleshooting various shipboard systems that are vital to ship operations, and allow engineers from various shore-based locations to collaborate in a real-time secure environment. RMAT will enable faster response times and mitigation of damage caused by engineering casualties, blast, fire, flooding, and equipment malfunction. Implementation of RMAT will increase the level of sensor data fusion, situational awareness, and survivability of the ship, as well as its ability to successfully complete its mission. The change from analog systems and manual data collection will save thousands of man-hours every year. Without funding for this effort, a need will exist to continue maintenance of obsolete hardware-based control panels and large redundant watch-standing and damage control repair parties that rely on slow, outdated, and error producing control systems and information management techniques.

Request as named in the report: Transitioning Stretch Broken Carbon Fiber to Production Programs

Requesting Member: ADERHOLT

Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010

Account or Provision: RDT&E—Defense Army

Legal Name of Requesting Entity: Hexcel Corporation

Address of Requesting Entity: 3300 Mallard Fox Drive, Decatur, AL 35609

Description of Request: \$3,200,000 for composite structure on existing military aircraft has saved weight and reduced O&M costs. However, a solution to the high cost and unrealized weight benefits of these structures is badly needed. Studies done in conjunction with the major aircraft manufacturers show that while composite material properties predict a weight savings of about 50% is achievable, only about 10–20% is being realized in today's designs. The problem is that the composite materials that are currently available in the marketplace cannot be formed into the

complex geometries necessary to realize the true weight savings available. This results in pressure at the design stage to reduce the complexity of parts so they are more fabrication friendly. If the designer holds firm on the part complexity, automated fabrication techniques are often ruled out due to the challenges of forming complex geometries with these processes. The end result is added weight and cost to the structure. Stretch Broken Carbon Fiber (SBCF) technology affords more weight reduction opportunities than any other solution under evaluation by the DoD. SBCF product forms offer a pseudo plasticity akin to metals that makes the forming of complex geometries much easier. These products can be used in all of the automated composite processes currently being used by fabricators including fiber and tape placement and engineered textile approaches for fabricating net shape preforms used in resin infusion processes. The focus of this program will be two-fold. First, funding will be allocated to various composite part fabricators to develop robust processes to mold full size prototype parts with SBCF product forms. Second, funding will be allocated to generate a Mil-HdBk-17 approved database. Both tasks are necessary to take this technology into production.

Request as named in the report: Cooperative International Neuromuscular Research Group

Requesting Member: ADERHOLT

Bill Number: H.R. 3326—the Department of Defense Appropriations Act, 2010

Account or Provision: RDT&E—Defense Army

Legal Name of Requesting Entity: Children's National Medical Center

Address of Requesting Entity: 111 Michigan Avenue, NW., Washington, DC 20010

Description of Request: \$3,280,000 for funds will be used for ongoing research and testing using molecular patches, to see if the same improvements experienced by dogs in clinical trials can be extended to humans with muscle damage. The funds will be used for ongoing research and testing using molecular patches, to see if the same improvements experienced by dogs in clinical trials can be extended to humans with muscle damage. This research benefits both warfighters (in terms of combating the effects of biological warfare attacks), and also potentially the civilian population who suffer from similar muscle tissue deterioration.

## PRINCIPIA COLLEGE SOLAR CAR

### HON. JOHN SHIMKUS

OF ILLINOIS

IN THE HOUSE OF REPRESENTATIVES

Wednesday, December 16, 2009

Mr. SHIMKUS. Madam Speaker, I rise today to honor the achievements of the Principia College Solar Team at this year's Global Green Solar Challenge.

Thirty-two teams from around the world traveled to Darwin, Australia for a 3000 kilometer race across the Australian outback in solar powered cars. Only nine teams were able to finish the grueling challenge, included among them was this outstanding group from Elsah, Illinois. Principia's Ra7 finished seventh in the world in this year's race and third among American entries.